

An annotated bibliography on modal existential wh-constructions*

Radek Šimík

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*This document is an updated version of the annotated bibliography included in the form of appendix in my thesis (Šimík 2011). Comments and suggestions are welcome.

Recent updates

- 2018/09/07: Polinsky (2015) documents MECs in Tsez.
- 2018/03/26: Kotek & Erlewine (2018, to appear) on Chuj (Mayan) wh-constructions, which include existential free relatives
- 2017/11/21: Panevová (2017) discusses Czech MECs (paper written in Czech).
- 2017/11/16: Tsedryk (to appear) discusses some Russian MECs in the context of Russian dative-infinitive constructions.
- 2017/11/09: I'm adding Caponigro (to appear) and Donati & Cecchetto (2011). Caponigro explores the implication of Donati & Cecchetto's wrong classification of MECs under (standard) free relatives.
- 2017/08/01: Bosque (2017)
- 2017/07/03: Gheorghe (2016) has an example of a MEC from Old Romanian
- 2017/06/30: Šimík (2017): a published/polished/selective version of this manuscript
- 2017/06/22: Sadler & Camilleri (2017): A detailed discussion of Maltese free relatives and MECs.
- 2017/04/25: Hoge (2017) is the first ever discussion dedicated to Yiddish MECs
- 2017/03/17: I added section 4, providing an overview of the terminological development.
- 2017/03/16: Fortuin (2000, 2014) has an analysis of Russian MECs; he also cites the following sources, which I'm adding, too: Veyrenc (1979); Zolotova (1982); Bricyn (1990)
- 2017/03/01: Bertollo & Cavallo (2012) notice that in Italian *(di) che* 'what' is available in MECs, but not in corresponding free relatives
- 2017/01/12: Brito (1988), cited by Mória (1992); added more information on both
- 2017/01/06: Hrabě (1965), cited by Garde (1976:44)
- 2016/12/02: Cinque (2016) endorses the CP (vs. DP) analysis of MECs and gives a novel argument from Italian (spoken in the Northeast of Italy).
- 2016/12/02: Mazzitelli (2015) discusses Belarusian and Lithuanian MECs.
- 2016/12/02: Jung (2010, 2011) briefly discusses Russian MECs.
- 2016/07/15: Ojea (2016) is a paper (written in Spanish) dedicated to Spanish MECs; it has an observation that topicalization is not possible within MECs. Ojea cites Bartra i Kaufmann (1990), which I also include.
- 2016/02/19: Torrence & Duncan (2016) observe the existence of existential free relatives in the Mayan language Kaqchikel.
- 2015/09/23: Probert (2015) observes the existence of MECs in Early Greek; reports observations in Hermann (1912).
- 2015/09/12: Kotek & Erlewine (2015b) discuss indefinite free relatives in Mayan languages and their relation to MECs.
- 2015/08/31: Camilleri & Sadler (2016) provide a number of examples of Maltese relative structures which they suggest might be related to MECs.

Foreword

This document summarizes the existing literature on MECs.¹ I try to provide as complete an overview as possible. Therefore, besides publications or manuscripts (henceforth “studies”) that deal with MECs in some detail, I include studies which are not specifically on that topic and which contain even just a single example of the MEC. This enables one to trace the development of the discussion of MECs in a wider context. I also include studies which I could not read myself, sometimes for reasons of unavailability, other times because they are written in a language I do not understand. If such a study is included, I notify the source in which it is cited and, if possible, include a small description of that study based on that source. In order to distinguish between these types of studies, I use three kinds of citation notations: studies which deal specifically with MECs and which I have read are printed in boldface, studies where MECs are not in the center of attention and which I have read are printed ordinarily, and studies which I have not read are printed in brackets.

I organize the references in three sections. In §1, I provide brief descriptions of the studies based on the language(s) that they deal with, the label they give to MECs, the analysis that they propose or assume, and the (then) novel observations about MECs that they make. For studies that I have not read, I notify the source(s) in which they were cited and on which I base my description (if there is one available). The references are ordered chronologically, from the oldest to the newest. In §2, I organize the references according to the language(s) that they deal with. This can be useful for readers who want to trace the discussion and examples of MECs in a particular language. The languages are organized according to language families and within them alphabetically. In §3, I provide a typology of MEC analyses and link them to their respective proponents. The typology abstracts away from many analytical details, concentrating on the syntactic and semantic category of MECs. In §4, I provide an overview of the terminological development of MECs. The first two sections of this document are exhaustive in that they contain all the references I have been able to trace, while the last two sections are selective: §3 only contains studies with a more or less explicit analysis and §4 only contains studies which provide an explicit terminological label for MECs.

¹For a more polished but selective version, which puts MECs in context of other *wh*-constructions that are/have been claimed to be interpreted existentially (I use the cover term *existential wh-constructions* for this purpose), see Šimík 2017.

1 Chronological ordering

This section contains an exhaustive chronologically ordered overview of the literature on MECs. Boldfaced references correspond to studies that deal with MECs in some detail (and that I have read), ordinary references correspond to studies in which the topic of MECs is marginal, and bracketed references are those that I have not read.

1.1 Until 1950

(Bello 1847)

1847

- *Languages:* Spanish
- *Observations:* Wh-words in MECs are either stressed or unstressed. Stressed wh-words correspond to interrogative pronouns and the unstressed to relative pronouns. The unstressed ones express ‘arbitrary’, ‘unspecified’ reference. objects/times/manners/etc.
- *Cited by:* Plann (1980)

(Ramsey 1894) (see Ramsey 1956)

(Hermann 1912)

1912

- *Languages:* (Early) Greek
- *Cited by:* Probert (2015)

Zubatý (1922)

1922

- *Languages:* Czech
- *Label:* rozvažovací (deliberativní) otázky [deliberative questions]
- *Analysis:* MECs are treated as embedded wh-questions. In contrast to standard embedded questions, however, MECs are assumed to be amalgamated with the matrix clause.
- *Observations:* Clitic climbing is possible out of MECs in Czech but not out of embedded questions.
- *Cited by:* Rappaport (1986)

(Trávníček 1931)

1931

- *Cited by:* Holvoet (1999)
- *Languages:* Old Czech
- *Analysis:* MECs in Old Czech lost their clausal status

(Peškovskij 1934)

1934

- *Languages:* Russian
- *Observations:* Negated MECs in Russian can be formed in two ways, either [BE neg+wh] or [neg+BE wh].
- *Cited by:* Růžička (1994)

1.2 1950s

(Holthusen 1953)

1953

- *Languages:* Russian
- *Cited by:* Rappaport (1986)

(Ramsey 1956)

1956

- *Languages:* Spanish
- *Observations:* Wh-words in MECs can (under some conditions?) be stressed / written with an accent, i.e. they can be like interrogatives pronouns.
- *Cited by:* Plann (1980: Ch. V)

(Galkina-Fedoruk 1958)

1958

- *Languages:* Russian
- *Analysis:* The wh-word in MECs analyzed as an indefinite pronoun.
- *Cited by:* Rappaport (1986)

1.3 1960s

(Šaxmatov 1963)

1963

- *Languages:* Russian
- *Analysis:* The Russian neg-wh formation in MECs is a modal predicate (e.g. like *nado* ‘necessary’).
- *Cited by:* Rappaport (1986)

(Mirowicz 1964)

1964

- *Languages:* Russian, Polish
- *Cited by:* Rappaport (1986)

(Hrabě 1965)

1965

- *Cited by:* Garde (1976:44)

(Bauer 1967)

1967

- *Cited by:* Holvoet (1999)
- *Languages:* Old Church Slavonic
- *Analysis:* Bauer takes these to be complement clauses (rather than relative clauses). The argument for that is that they make use of wh-words rather than relative operators (these were distinct in Old Church Slavonic).

(Porák 1967:105)

- *Cited by:* Holvoet (1999)
- *Languages:* Old Czech
- *Analysis:* The wh-word as the head noun.

1.4 1970s

(Švedova 1970)

1970

- *Languages:* Russian
- *Cited by:* Holvoet (1999)

(Georgieva 1971)

1971

- *Languages:* Russian
- *Cited by:* Rappaport (1986)

(Mrázek 1972)

1972

- *Languages:* Russian (and probably other Slavic languages)
- *Cited by:* Chvany (1975); Růžička (1994)

Chvany (1975:62)

1975

- *Languages:* Russian
- *Analysis:* The MEC is a VP and gets selected by an existential predicate—BE. Concerning the Russian neg-wh formation: The existential predicate is incorporated in the negation marker; if *bylo* ‘was’ appears together with the neg-wh formation, it is analyzed as a Tense marker rather than the existential predicate itself; the neg-wh formation is syntactic, not post-syntactic.
- *Observations:* The negation in neg-wh formations does not license negative concord items.
- *Quote:* “The grammar of these constructions is highly mysterious.” (62)

(Plann 1975)

- *Languages:* Spanish
- *Analysis:* MECs are NPs.
- *Cited by:* Plann (1980)

(Garde 1976)

1976

- *Languages:* Russian
- *Analysis:* MECs have the syntax of embedded questions and correspondingly, the wh-word is an interrogative pronoun. Concerning the neg-wh formation: The existential predicate is incorporated in the negation marker; the formation is syntactic and is enabled by an erasure of the clausal boundary (restructuring).
- *Cited by:* Rappaport (1986); Růžička (1994); Pancheva Izvorski (2000)

(Hirschbühler 1976)

- *Languages:* French

- *Cited by:* Hirschbühler (1978)

(Isačenko 1976)

- *Languages:* Russian
- *Analysis:* *ne wh* is a modal predicate like *nado*; this explains the infinitive, as well as the dative subject
- *Cited by:* Rappaport (1986)

(Obenauer 1977)

1977

- *Languages:* French
- *Analysis:* He assumes MECs to be infinitival counterparts to free relative clauses.
- *Cited by:* Hirschbühler (1978:176,fn14)

Hirschbühler (1978:176,fn14)

1978

- *Languages:* French
- *Analysis:* Hirschbühler looks at MECs embedded under ‘find’ and argues for an infinitival embedded question analysis.

Hirschbühler (1978:218ff,§7.8)

- *Languages:* French, Spanish
- *Label:* Infinitival free relatives
- *Analysis:* Hirschbühler follows van Riemsdijk (1978), of whom he provides no clear account, though. Even though he follows the infinitival free relative analytical path, he points out that MECs are distinct enough from standard free relatives for them not to “threaten” the analyses of standard free relatives.

(van Riemsdijk 1978)

- *Languages:* Spanish
- *Analysis:* An analysis based on the [NP to VP] filter of Chomsky and Lasnik (1977). Details are unclear.
- *Cited by:* Hirschbühler (1978)

(Veyrenc 1979)

1979

- *Languages:* Russian
- *Cited in:* Fortuin (2000:456)

1.5 1980s

Plann (1980: III.B, IV, V (123–162))

1980

- *Languages:* Spanish
- *Analysis:* MECs are treated as modifiers of empty nominals, i.e. essentially as infinitival headed relative clauses.
- *Observations:* Plann makes a number of valuable insights. She notices the limited distribution of MECs (ban on subject position, ban on passivization), the limited class of embedding predicates, the polarity sensitivity of some MECs (in particular MECs with *quien* ‘who’), the fact that MECs take narrow scope, an observation she attributes to Bello (1847). She also notices a number of close parallelisms with infinitival headed relatives.

Hirschbühler & Rivero (1981)

1981

- *Languages:* Catalan, French
- *Label:* Infinitival relatives
- *Analysis:* No clear analysis is provided.

(Penchev 1981)

- *Languages:* Bulgarian
- *Analysis:* Wh-words treated as indefinite pronouns.
- *Cited by:* Rudin (1986:158)

Pesetsky (1982:149–157)

1982

- *Languages:* Russian
- *Label:* Infinitival free relatives
- *Analysis:* Syntactically, MECs are argued to be of category S' , i.e. “bare” CPs, structurally equivalent to embedded questions (an idea usually attributed to Grosu 1989). Semantically, they are treated as generalized quantifiers which have to undergo quantifier raising. The analysis is supposed to explain a number of previously observed facts, e.g. the fact that there are no matching effects (S' is not subject to the Case filter), or the restrictions in distribution (the trace left after MECs’ QR cannot be licensed by its antecedent, as it is not an NP, and must therefore rely on a proper (verbal) governor).
- *Observations:* MECs can only be embedded under verbs that assign structural case (*zarvatit* ‘seize’ assigning ACC is good, *ovladat* ‘seize’ assigning INSTR is bad). MECs do not show matching effects. MECs can appear in argument positions of passives (‘was bought’) and unaccusatives (‘appear’).

(Zolotova 1982)

- *Languages:* Russian
- *Cited in:* Fortuin (2000:456)

(Palmaitis 1984)

1984

- *Languages:* Lithuanian
- *Cited by:* Kalėdaitė (2008)

Suñer (1984)

- *Languages:* Spanish, (Catalan, French)
- *Label:* Infinitival free relatives
- *Analysis:* Suñer mainly concentrates on the problem of matching effects. MECs are treated as A [-tense] counterpart of [+tense] free relatives. FRs (i.e. both standard FRs and MECs) are analyzed as S' (S plus COMP), i.e. CPs, selected by a silent *pro*. This *pro* needs licensing via agreement. In standard FRs, it gets licensed by Case-matching with the wh-phrase in COMP. In MECs, it gets licensed by the embedded INFL. The embedded INFL is accessible by the INFL accessibility hypothesis, which assumes that INFL is the head of S' (CP). The non-specificity of MECs is attributed to the fact that MECs are in the infinitive/subjunctive mood. It has been independently observed that the mood of (headed) relative clauses affects the scope of the head of the RC.

(Browne 1986)

1986

- *Languages:* Serbo-Croatian
- *Analysis:* The wh-word is argued to belong to a mixed indefinite-interrogative category.
- *Cited by:* Pancheva Izvorski (2000:42)

Rappaport (1986)

- *Languages:* Russian
- *Label:* BKI-construction (BE + K-word + Infinitive); K-word corresponds to wh-word
- *Analysis:* BE is a two-place predicate, which takes a dative constituent as its external argument and a wh-pronoun as its internal argument. There is a tension between the syntactic and the semantic representation of the wh-word, which he calls a “syntactic quantifier”. Syntactically, the wh-word originates in the infinitival constituent; semantically, the infinitival constituent behaves as an argument of the wh-word, which it modifies. The neg-wh formations are argued to be stored in the lexicon, i.e. they are “negative syntactic quantifiers”.

Rudin (1986: Chapter 6)

- *Languages:* Bulgarian
- *Label:* Indefinite construction (INDEF)
- *Analysis:* MECs are treated as “bare” CPs. The wh-word is assumed to be an indefinite which, nevertheless, undergoes obligatory wh-movement. The matrix existential verb has a double subcategorization pattern: [$_{-}$ NP, $_{-}$ CP], so it can select both NPs and CPs (i.e. MECs).

- *Observations:* Rudin makes three novel observations: MECs allow for sluicing; MECs can contain multiple wh-words; wh-movement in multiple wh-MECs displays superiority effects (in Bulgarian).

(Nozsicska 1987)

1987

- *Languages:* Russian
- *Cited by:* Ružička (1994)

(Besters-Dilger 1988:356ff.)

1988

- *Languages:* Russian, Polish
- *Cited by:* Mendoza (2004:333)

Brito (1988: Chapter 5, Section 3.1.2., pp. 371–377)

- *Languages:* Portuguese, (Spanish, French)
- *Label:* Subcategorized free relatives without categorial matching (approximate translation)
- *Cited by:* Mória (1992)
- *Main sources:* Suñer (1984)
- *Analysis:* *pro*-headed, probably inspired by Suñer (1984)
- *Observations:* Possible embedding verbs: *ter* ‘have’, *procurar* ‘search’, *encontrar* ‘find/meet’ (?)

(Apresjan & Iomdin 1989)

1989

- *Languages:* Russian
- *Analysis:* Concerning the neg-wh formations: The negation marker *ne* is a negative form of the existential BE. The neg-wh items are called “syntactic agglomerates”. The authors have a dependency analysis: BE (whether negative or affirmative) sits on the top and dominates the copula, which in turn dominates the embedded infinitive and the wh-word (the two are sisters) and finally the infinitive dominates the dative subject (which is claimed to be agentive). As clearly noted by Fortuin (2014), the authors assume that all MECs have to ‘be’-verbs: in the affirmative, the copula is zero and existential overt, in the negative, the copula can be expressed overtly and the existential is part of the negative morpheme.
- *Observations:* In some cases, the dative subject must be animate (**Kartine negde povesit* ‘There is nowhere for the picture to hang’), in others this is not necessary (*...jabloku negde budet upast* ‘the apple has nowhere to fall’) (cited from Fortuin 2000:458); see also Šimík (2013b) for a discussion of the animateness restriction (not reflecting Apresjan & Iomdin’s discussion, though). The negated MEC comes in two types: one where the negation is attached to the wh-word and another where it is attached to (a past/future form of) the existential verb. These two versions are also analyzed in Kondrashova & Šimík (2013).
- *Cited by:* Avgustinova (2003); Fortuin (2000, 2014)

Grosu (1989)

- *Languages:* Spanish, Romanian
- *Label:* Non-indicative/future-oriented free relatives (explicitly trying to avoid Suñer’s 1984 term “infinitival free relatives”)
- *Analysis:* Grosu adopts the analysis of Pesetsky (1982), i.e. he treats them as bare S' and as quantifiers that undergo quantifier raising.
- *Observations:* Grosu notices the existence of subjunctive MECs (until then, only infinitival MECs had been considered). (Heavy) pied-piping is observed to be possible in (Romanian) MECs as opposed to free relatives.

(Yoon 1989)

- *Languages:* Russian
- *Cited by:* Babby (2000)

1.6 1990s

(Bartra i Kaufmann 1990)

- *Languages:* Catalan
- *Cited by:* Ojea (2016)

(Bricyn 1990)

- *Languages:* Russian
- *Cited in:* Fortuin (2000:456)

Móia (1992: Section 3.2; 93–119)

- *Languages:* Portuguese
- *Cited by:* Caponigro (2001)
- *Main sources:* Suñer (1984); Brito (1988), but goes well beyond them in observations
- *Observations:* Portuguese MECs can also be marginally in the subjunctive (marked ? or ??); subjunctive becomes obligatory if the subject is the wh-word; see fn. 46 on p. 94. Possible embedding verbs: *ter* ‘have’, *arranjar* ‘find’ (?), examples with *procurar* ‘search’ and *encontrar* ‘find’ are marked with a question mark. Portuguese has negative-pronoun/NP-headed infinitival relatives (e.g. ‘I have nobody with whom to discuss...’). Portuguese does not allow for complex wh-phrases, in contrast to infinitival wh-questions (p. 108). Portuguese has a MEC-like construction similar to a Czech one: *Tenho (muito) que fazer* (p. 114) (cf. Czech *Mám hodně co dělat.*).

Grosu (1994:137–143)

- *Languages:* Spanish, Romanian, Modern Hebrew
- *Label:* Irrealis free relatives

- *Analysis:* MECs are considered to be bare CPs, syntactically, and suggested to be (related to) amount relatives, semantically.
- *Observation:* MECs do not stack (a property in common with amount relatives).

(Ramos-Santacruz 1994)

- *Languages:* Spanish
- *Label:* Nonspecific free relatives
- *Analysis:* MECs are clauses headed by a ‘yet unidentified empty category’.
- *Cited by:* Caponigro (2003)

Růžička (1994)

- *Languages:* Russian, (Czech, Slovak)
- *Label:* Free relatives
- *Analysis:* MECs are treated as relative clauses headed by an empty DP. Semantically, MECs are implications of (im)possibility of the existence of an event. Russian neg-wh formations are formed syntactically, by negation-lowering.

Leslau (1995)

1995

- There *might* be MECs in Amharic; this is tentatively suggested in a footnote in Kramer (2009)

(Peres & Mória 1995)

- *Languages:* Portuguese
- *Mentioned by:* Adriana Cardoso (p.c.)

Ambrazas (1997)

1997

- *Languages:* Lithuanian
- *Analysis:* Only description.
- *Cited by:* Gärtner (2009)

Bošković (1998)

1998

- *Languages:* Bulgarian
- *Analysis:* MECs treated on a par with embedded questions (Bošković follows Izvorski 1998).

Grosu & Landman (1998:155–158)

- *Languages:* Romanian
- *Label:* Irrealis free relatives

- *Analysis:* MECs are treated as CPs, syntactically, and as properties, semantically. The authors summarize the evidence in favor of treating MECs as interrogatives (syntactically): lack of matching effects; availability of (heavy) pied-piping; existence of multiple wh-MECs; transparency for extraction; distribution (definiteness effects).

Izvorski (1998)

- *Languages:* Russian, Bulgarian, Greek
- *Label:* Non-indicative wh-complements of possessive and existential predicates
- *Analysis:* MECs treated as embedded questions, syntactically. The semantic analysis is inconsistent. Informally, Izvorski follows Heim (1982) and Berman (1991) and assumes that MECs are open propositions ($\langle s, t \rangle$ -type expressions). Formally, Izvorski treats MECs as properties ($\langle e, t \rangle$ -type expressions). Her formal analysis is identical to Caponigro's (2003).
- *Observations:* MECs can be modified by stage-level but not individual-level predicates.

Holvoet (1999)

1999

- *Languages:* Lithuanian, Latvian, Polish, Russian, Old Church Slavonic
- *Label:* Infinitival relative clauses
- *Observations:* Holvoet remarks that Latvian (as opposed to other Baltic and Slavic languages) has true infinitival relatives, i.e., infinitival relatives attached to an overt head noun (related to purpose clauses semantically). Holvoet claims that Baltic and Slavic MECs must have developed independently, “as the infinitive lost its original nominal character and became a verbal form.” (38) In Old Church Slavonic (and today also in Latvian), wh-subjects were used with 3rd person indicatives. With negative matrix verbs, the embedded wh-word sometimes bears the genitive of negation (in Old Church Slavonic, in Baltic, some Slavic).
- *Analysis:* Historically, MECs are claimed to derive from headed relatives, where the wh-word was the argument of the matrix verb. Then these wh-words were reanalyzed (arguably due to the similarity to embedded infinitival interrogatives) as belonging to the embedded clause. Yet, the status as relatives is still retained, as witnessed by the availability of genitive of negation on the wh-word (as opposed to wh-words in embedded interrogatives).

1.7 2000s

Babby (2000)

2000

- *Languages:* Russian
- *Label:* Infinitival existential sentences
- *Analysis:* MECs are treated as bare CPs, but an explicit relation to questions (as well as free relatives) is denied. The dative subject is generated in the MEC, from where it can A-move to the matrix syntactic context (a hint of restructuring). Neg-wh formations are formed post-syntactically (at morphology/PF). The negation marker in neg-wh formations is called a “dependent existential predicate” (dependent in the sense that it can only be used in combination with the wh-word and potentially one or two more words).

- *Observations:* In Russian, ‘what’ in MECs can be in genitive even under accusative-assigning prepositions and without (matrix) negation.

Fortuin (2000: s. 4.16.2, pp. 456–464)

- *Languages:* Russian
- *Label:* Existential construction
- *Analysis:* Fortuin is concerned with the modal semantics of MECs, the role of the dative subject, the question of what is the subject and what is the predicate in these constructions, and their information structure. Concerning the dative subject, he argues that it expresses “the recipient (Bricyn 1990: 188) of the availability of a person/place, etc. variable, and indirectly the recipient of the infinitive situation.” (p. 458)
- *Observations:* The construction expresses “absence of necessity, possibility and absence of possibility.” (p. 457) The dative subject can only be inanimate if it is “personified [...] or more generally if a *tendency* can be ascribed to [it] to realize the infinitive situation.” (p. 459; extending the original observation of Apresjan & Iomdin 1989; see also Šimík (2013b:1188–90) for a related discussion) The infinitive can be topicalized, an observation supported by real examples, e.g. *Mne bezhat’ nekuda* ‘I have nowhere to run’. (p. 461)

(Kalėdaitė 2000)

- *Languages:* Lithuanian
- *Label:* BKB-construction
- *Analysis:* MECs treated as “language-specific existential structure[s]”, which are “syntactic synonym[s] of the existential type ‘proper’.” (citation from the English abstract)

Lipták (2000)

- *Languages:* Hungarian
- *Label:* Infinitival relatives
- *Analysis:* Lipták is mainly concerned with multiple wh-MECs. She follows Rudin (1988) and claims that the higher wh is adjoined to the lower one, rather than sitting in another functional projection (such as QP or DistP), as often claimed for corresponding multiple wh-questions. The adjoined wh-phrase is claimed to have a universal meaning.

Pancheva Izvorski (2000: Chapter 2)

- *Languages:* Russian, Hebrew, Italian, Serbo-Croatian, Old Spanish, Greek, Bulgarian
- *Label:* Wh-existential constructions
- *Analysis:* Syntactically, MECs are treated as CPs (as embedded questions), selected by a modal predicate, which (in some languages) incorporates into a higher existential head and creates the verb ‘have’, much like in Freeze (1992) and Kayne (1993), except that its lower part is not semantically possessive but rather modal; the existential part of the verb lends the modal its existential force. No compositional account of this syntax is provided. Semantically, the analysis is inconsistent, a problem that carries over from Izvorski (1998). Informally, Pancheva-Izvorski follows Heim (1982) and Berman (1991) and assumes that MECs are open propositions ($\langle s, t \rangle$ -type expressions). Formally, Izvorski treats MECs as properties ($\langle e, t \rangle$ -type expressions). Her formal analysis is identical to Caponigro’s (2003).

Caponigro (2001)

2001

- *Languages:* Italian, Spanish, Portuguese, French, Romanian, Russian, Serbo-Croatian, Bulgarian, Hungarian, Greek, Hebrew, Yiddish,
- *Label:* Indefinite free relatives
- *Analysis:* MECs are claimed to be Jacobsonian (1995) free relatives (and at the same time embedded questions) before type-lowering, i.e. CPs denoting a singleton set containing the maximal entity that satisfies the given predicate. The matrix verb existentially closes this set.

(Holvoet 2001)

- *Cited by:* Holvoet (2003); Kalėdaitė (2012)
- *Languages:* Polish, Russian, Lithuanian
- *Label:* Infinitival relative clauses
- *Analysis:* MECs are historically derived from infinitival purpose clauses: I [have something] to eat (it) → I have [what to eat].

Lipták (2001: Chapter 1, Chapter 2)

- *Languages:* Hungarian
- *Label:* infinitive clauses with a matrix existential predicate
- *Analysis:* Very tentative, but she claims that the existential force comes from the matrix verb.
- *Observations:* Impossible with normal (non-bare-wh) indefinites

Grosu (2002)

2002

- *Languages:* Romanian, French
- *Label:* Modal existential clausal constructions

Kalėdaitė (2002)

- *Languages:* Lithuanian
- *Cited by:* Kalėdaitė (2008)

de Vries (2002:Chapter 2, §6.3)

- *Languages:* Romanian
- *Label:* Irrealis free relatives.
- *Analysis:* MECs are placed in a typology of free relative constructions. The analysis of Grosu & Landman (1998) is adopted.

Agouraki (2003)

2003

- *Languages:* Greek

- *Label:* Irrealis free relatives
- *Analysis:* She deals with MECs only marginally, the focus of her investigation being what she calls future wh-clauses in DP positions.

Avgustinova (2003)

- *Languages:* Russian
- *Label:* Infinitival existential constructions.
- *Analysis:* Avgustinova devises an HPSG analysis of MECs. She treats them as being in one clause with the matrix verb. The matrix verb BE maps to an existential predicate that takes the MEC and the dative subject as arguments (much like in Rappaport 1986). The neg-wh formation is considered to be a “syntactic agglomerate” (following Apresjan & Iomdin 1989), which means that it is a *syntactically* formed *lexical item*, where being “lexical” means having (HPSG) lexical properties, such as argument structure.
- *Main source:* Apresjan & Iomdin (1989)
- *Observations:* Avgustinova makes two novel observations: given the lexical material of the MEC and of the matrix verb, any word-order permutation is acceptable (in Russian), variation being subject to information structure constraints; the dative subject of MECs can co-occur with *u*+genitive (possessive) subject.

Caponigro (2003: Chapter 3)

- *Languages:* Hebrew, Italian, Yiddish, New York English, European and Mexican Spanish, Catalan, European and Brazilian Portuguese, French, Romanian, Russian, Polish, Bulgarian, Serbo-Croatian, Macedonian, Modern Greek, Albanian, Hungarian, Estonian, Finnish, Moroccan Arabic
- *Label:* Existential free relatives
- *Analysis:* Syntactically, MECs are treated as “bare” CPs, i.e. as interrogatives. Semantically, they denote properties, i.e. the type of expression which, in the case of standard free relatives, feeds into the maximalizing/definite operator.
- *Observations:* There is a construction closely related to MECs, which appears in the indicative mood (treated by Caponigro as a subcase of MECs). The indicative cannot have an episodic interpretation, it is modal, generic, or habitual. The overlapping properties with MECs are their indefiniteness and the lack of matching effects.

Holvoet (2003)

- *Languages:* Polish, Russian, Lithuanian
- *Cited by:* Kalédaitė (2012)

Lipták (2003)

- *Languages:* Hungarian
- *Label:* Modal existential wh-constructions

- *Analysis:* Lipták argues that MECs in Hungarian can be both “bare” CP/IP/TopP and relatives with covert NP heads. This difference correlates with the type of wh-operator used. The former use interrogative wh-words, the latter use relative wh-words, i.e. wh-words prefixed by *a*—a morpheme homophonous with the definite determiner.
- *Observations:* Lipták makes a number of valuable language-specific observations about Hungarian. She observes that it is impossible to topicalize the whole MEC.

Caponigro (2004)

2004

- *Languages:* Hebrew, Italian
- *Analysis:* see Caponigro (2003)
- *Observations:* MECs cannot be quantified over by adverbs of quantification.

Grosu (2004)

- *Languages:* Russian, Polish, French, Greek, Albanian, Bulgarian, Macedonian, Spanish, Hebrew, Serbo-Croatian, Classical Arabic, Hungarian, Romanian
- *Label:* Modal existential wh-constructions (MECs)
- *Analysis:* MECs are treated as CPs, syntactically, and as generalized quantifiers, semantically. MECs are quantifiers by virtue of having a specialized C-head, which has two features: an existential generalized quantifier feature and a non-indicative feature. The matrix predicate only plays a licensing role (it is not a quantifier itself).
- *Observations:* MECs are bad as predicates, whether in predicative or attributive positions; the MEC-internal event can be construed (in Romanian) as temporally back-shifted with respect to the matrix temporal interval (‘could have’ interpretation); multiple wh-MECs are only possible with multiple wh-fronting

Lenertová (2004)

- *Languages:* Czech
- *Analysis:* Lenertová suggests that the wh-word is an indefinite rather than an interrogative wh-operator.

Mendoza (2004:333–334)

- *Languages:* Polish
- *Label:* ‘nie ma co robić’ construction
- *Observations:* Embedding under ‘have’ and ‘be’; existence and modal assertion; only ‘who’ and ‘what’ allowed as wh-words

Agouraki (2005)

2005

- *Languages:* Greek
- *Label:* Irrealis free relatives
- *Analysis:* Syntactically, MECs are claimed to be indefinite DPs. Semantically, it is suggested that they could be construed as intensional properties.

Surányi (2005)

- *Languages:* Hungarian
- *Label:* Modal existential wh-constructions
- *Analysis:* The wh-word incorporates into the matrix predicate. The position to which it moves is the matrix SpecPredP (following É. Kiss 2003), which is assumed to be the position for verbal modifiers, non-referential incorporated nominals, secondary predicates, etc. The free variable of the wh-indefinite is unselectively bound by the existential quantifier (implicit) in the existential predicate. The reason why the existential predicate is pronounced before the wh-word is that the predicate moves to Foc. Multiple wh-MECs are structurally and semantically ambiguous: either both wh-words move to SpecPredP, in which case they are both existential, or one of them moves to SpecDistP, in which case it has universal force. The relevant functional sequence is the following [FocP matrix predicate [DIstP (wh) [PredP wh [...]]]]
- *Observations:* The wh-word/MEC does not introduce discourse referents; multiple wh-fronting is necessary in multiple-wh MECs in Hungarian, even though single wh-fronting is allowed otherwise (in questions).

Tredinnick (2005:31–32)

- *Languages:* Italian, Yiddish, New York English, Hebrew, Catalan, Finnish
- *Label:* Indefinite/Existential free relatives
- *Analysis:* Tredinnick just notes their existence, based on the discussion of Caponigro (2004) and Grosu & Landman (1998); she provides no analysis of her own.

Fleisher (2006)

2006

- *Languages:* Russian
- *Label:* Infinitival existential sentences
- *Analysis:* Fleisher is mainly concerned with the identification of the subject of MECs. He argues (contra Babby 2000) that the dative subject is generated in the matrix clause and controls a PRO in the MEC.

Gärtner & Gyuris (2006) [an abstract]

- *Languages:* Hungarian
- *Label:* Modal existential wh-constructions
- *Analysis:* They don't provide an analysis themselves, but rely on an analysis where MECs are formally questions.

Ceplová (2007)

2007

- *Languages:* Czech
- *Label:* Wh-existential constructions
- *Analysis:* MECs are suggested to be vPs, rather than CPs. The matrix verb is a raising verb.

- *Observations:* A range of language-specific observations about Czech MECs are made.

Kalėdaitė (2008)

2008

- *Languages:* Lithuanian
- *Label:* BKI-construction (following Rappaport 1986)
- *Analysis:* The paper is mainly descriptive.

Kondrashova (2008)

- *Languages:* Russian
- *Label:* Existential dative-infinitive structures
- *Analysis:* It is suggested that MECs are vPs rather than CPs. The neg-wh formation is treated as consisting of a negative existential quantifier and a syntactically incorporated wh-word.
- *Observations:* There cannot be more than one neg-wh formation per MEC.

Nikunlassi (2008)

- *Languages:* Russian
- The thesis is in Russian, so I have no idea what is in it.

Šimík (2008)

- *Languages:* Czech
- *Label:* Modal existential wh-constructions
- *Analysis:* Syntactically, MECs are treated as vPs. Semantically, as properties.

Thomas (2008b,a)

- *Languages:* French
- *Label:* Modal existential wh-constructions
- *Analysis:* MECs treated as “bare” CPs, no commitment is made with respect to the interrogatives vs. relative issue. Thomas is mainly concerned with the French-specific fact that wh-words in direct object positions cannot participate in MEC formation. direct object wh-words are claimed to be impossible and alternative strategies are used (most notably *de quoi* instead of *quoi/que*); this is assumed to somehow fall out from the French restriction on non-pied-piped wh-words in relative clauses (they get deleted and only the complementizer is realized); it is suggested that λ might be the MEC-complementizer in contexts without wh-words
- *Observations:* French MECs cannot be formed by wh-fronting direct objects. Inanimate wh-objects *quoi/que* ‘what’ must be replaced by the suppletive form *de quoi* ‘of what’.

Rebuschi (2009)

2009

- *Languages:* Basque (including historical data)

- *Label:* Indefinite free relatives
- *Analysis:* none
- *Observations:* In today's Basque, there is a preference for using verb forms without aspect markers and auxiliaries, though the subjunctive and the future (indicative) are still acceptable. Wh-words in Basque MECs marginally allow the presence of the particle *ere*, corresponding to the English *-ever*.

Šimík (2009)

- *Languages:* Czech, Russian, Serbo-Croatian
- *Label:* Modal existential wh-constructions
- *Analysis:* Syntactically, MECs are treated as vPs. Wh-words in MECs are argued to be Hamblin indefinites, i.e. set-denoting expressions. The whole MEC has a denotation of a set of propositions and the matrix verb that selects them is treated as a Hamblin quantifier: selecting the set of propositions and returning a proposition.
- *Observation:* MECs do not introduce discourse referents. Wh-words in MECs cannot undergo successive-cyclic movement.

1.8 2010s

Citko (2010: p. 246, fn. 20)

2010

- *Languages:* Polish
- *Label:* Indefinite free relatives (after Caponigro 2001)
- *Observations:* Polish MECs disallow complex wh-phrases; Polish MECs disallow the ever-morpheme on wh-words (*-kolwiek*)

Jung (2010)

- See Jung (2011)

Livitz (2010)

- *Languages:* Russian, (Hungarian, Romanian)
- *Label:* Modal existential constructions (and modal possessive constructions)
- *Analysis:* Livitz argues for a further division within the MECs. Standard MECs are analyzed as bare CPs, selected by an existential predicate. Modal possessive constructions (MPCs), on the other hand, are analyzed as light-headed relative clauses which are generated as internal arguments of a possessive small clause, which is in turn selected by an existential predicate. The motivation that comes from distinguishing MPCs from MECs comes from the fact that Russian allows for two types of subjects: dative subjects (MECs) and prepositional genitive subjects (MPCs).
- *Observations:* A number of novel observations distinguishing MECs from MPCs.

Donati & Cecchetto (2011 p. 553, ex. (107))

2011

- *Languages:* Italian

- *Cited in:* Caponigro (to appear)
- *Relevance:* The authors consider an example of an MEC (ex. (107) on p. 553) to be a standard free relatives, which is infinitival. Caponigro (to appear) criticizes this view, noting that the example cannot be subsumed under (standard) free relatives, but rather under the different category of MECs (or as he calls them existential free relatives).

Gheorghe (2011)

- *Languages:* Romanian
- *Label:* Infinitival relative clauses

Jung (2011: Chapter 6, section 2.3.1)

- *Languages:* Russian, Old Russian
- *Label:* Dative-infinitive existential construction (DIE)
- *Analysis:* CP, the dative subject is generated within the MEC, not outside; The DIE is argued to be derived from the more basic dative-infinitive modal construction (DIM). My comment: The problem is that the modality they express is different, so a derivational relationship is unlikely.

Šimík (2011)

- *Languages:* Spanish, Italian, Czech, Russian, Slovenian, Hungarian, (French, Catalan, Romanian, Portuguese, Bulgarian, Slovak, Serbo-Croatian, Polish, Macedonian, Ukrainian, Estonian, Finnish, Lithuanian, Latvian, Hebrew, Moroccan Arabic, Classical Arabic, Yiddish, Greek, Albanian, Basque)
- *Label:* Modal existential wh-constructions (MECs)
- *Analysis:* There is no predetermined syntax of MECs, cross-linguistically, many different types are attested—from vP-level MECs to CP-level MECs, the latter of which includes the more typical interrogative-like MECs, but also free relative-like MECs (Hungarian). Semantically, MECs express a relation between an individual that is available, an event that takes place thanks to the available individual, and a possible situation in which that event takes place.

Bertollo & Cavallo (2012: p. 63, fn. 5)

2012

- *Languages:* Italian
- *Label:* (Infinitival) free relatives
- *Observation:* While free relatives in Italian cannot be introduced by (*che*) *cosa* ‘what’, MECs can be introduced by *di che* ‘(of) what’, as in *Non ho di che lamentarmi* ‘I don’t have anything to complain about.’

(Kalėdaitė 2012)

- *Languages:* Lithuanian
- *Label:* She recognizes a number of labels, in particular infinitival relative clause, BKI-construction, infinitival existential sentence, modal existential wh-construction

- *Analysis:* MECs are hypothesized to be a subtype of a “specifying existential sentence type”

Livitz (2012)

- *Languages:* Russian, Hungarian
- *Label:* Modal existential constructions (ModEx) and modal possessive constructions (ModPoss)
- *Analysis:* Both CPs; ModEx selected by BE, ModPoss selected by Poss (hosting a possessor in its specifier)
- *Observations:* Possessor *u*-DPs cannot occur within the wh-infinitival; possessor *u*-DPs cannot co-occur with neg-wh items (they receive locative readings); ModEx can involve an invention verb, which supports the analysis of Šimík (2009), who claims that the existence is not stated wrt the actual world; yet this does not hold for ModPoss, where invention verbs are not allowed.

Caponigro et al. (2013)

2013

- *Languages:* Nieves Mixtec, Melchor Ocampo Mixtec, (Hebrew)
- *Label:* Existential free relatives
- *Analysis:*

Grosu (2013)

- *Languages:* Romanian, (French)
- *Label:* Modal Existential Constructions (MECs)
- *Analysis:* The analysis closely follows Grosu (2004). MECs are considered to be bare CPs that denote existential generalized quantifiers. Arguments are provided mainly for the bare CP analysis.

Guajardo (2013)

- *Languages:* Spanish
- *Label:* Modal existential constructions (MECs)
- *Claim:* The main claim is that the choice of mood in Spanish MECs is dictated by general principles of mood selection in the Spanish grammar. That is, there is nothing construction-specific about MECs. The focus is on the subjunctive vs. indicative issue.
- *Observations:* The most prominent observation of the paper is that Spanish allows for indicative MECs (similarly to Italian in the view of Caponigro 2003), thus challenging the validity of the implicational universal 3 in Šimík (2011:62) as well as one of the defining properties of MECs, namely that they are modal (Šimík 2011:60). The indicative is possible if (i) the matrix verb is ‘be’ or ‘have’; (ii) the wh-word is the subject of the MEC; (iii) the matrix verb is affirmative (negative verbs give rise to embedded subjunctives); the affirmative/negative distinction suits a more general behavior of embedded mood in Spanish. The categorization of these indicative constructions as MECs is supported by the fact that they are acceptable in *there*-contexts, where definite DPs (and hence free relatives) are ruled out in Spanish. The possibility that these

are kind-denoting free relatives (raised in Šimík 2013b: footnote 25) is not considered. Further observations: Spanish places no restrictions on wh-pronouns in MECs (confirming Šimík 2011). Spanish disallows complex wh-phrases such as *con qué personas* ‘with which people’ in MECs. The infinitive-subjunctive alternation in Spanish MECs correlates with a comparable alternation in purpose clauses (coreferent subjects give rise to infinitive, disjoint subject to subjunctive).

Kalėdaitė (2013)

- *Languages:* Lithuanian
- *Label:* Modal existential wh-constructions (MECs)
- *Observations:* Kalėdaitė capitalizes on the observation that Lithuanian allows for indicative and participial MECs (as already observed in Ambrazas 1997 and Kalėdaitė 2008 and acknowledged in Šimík 2011) and provides corpus support. At the same time, she intends to show that there are MECs that express habituality/genericity rather than circumstantial possibility (contra the predictions of Šimík 2013b and in line with the observations of Caponigro 2003; the abstract has no example of this).

Kondrashova & Šimík (2013)

- *Languages:* Russian
- *Analysis:* The authors provide a complex analysis of Russian MEC-types, esp. the difference between canonical MECs and MECs involving the neg-wh formations. It is argued that the main parameter distinguishing Russian MECs is the selectivity of the matrix quantifier. The selective (i.e. determiner-like) quantifier gives rise to neg-wh MECs and the unselective quantifier gives rise to canonical MECs.
- *Observations:* MECs with neg-wh formations do not license more than one wh-word.

Livitz (2013)

- *Languages:* Russian
- *Label:* infinitival wh-clauses embedded under existential predicates
- *Analysis:* The subject of MECs is allowed to raise across a CP thanks to the existence of “C-raising”—a raising correlate of Landau’s (2004; 2008) C-control—i.e., an agreement relationship between a matrix T and an embedded C, which in turn agrees with the embedded subject.
- *Observations:* There is an asymmetry between MECs and infinitival embedded questions in that subjects can extract (wh-extract or A-move) only out of the former and not out of the latter. This observation is already implicitly present in Babby (2000), as Livitz acknowledges. In multiple-wh MECs in Russian there can be a topic between the two wh-words (though topic status is not clearly controlled for: it is also a subject).

Šimík (2013b)

- *Languages:* Spanish, Czech, Portuguese, Russian, Hungarian, Greek, Slovenian, Hebrew, Italian
- *Label:* Modal existential wh-constructions (MECs)

- *Analysis:* The core syntactic and semantic analysis is the same as in Šimík (2011). The MEC-embedding predicate is decomposed into two projections: a hierarchically higher Be projection (expressing availability) and a lower applicative-like For projection (expressing the beneficiary of the availability). The For head is semantically a control predicate and its argument functions as the controller of empty MEC subjects. If the MEC subject is realized as a wh-word, a slightly different type of For head is used, one that obviates the control relation and at the same time can formally license the wh-subject.
- *Observations:* There is a class of MECs (called “control MECs”) that only allows for two types of subjects: either an obligatorily controlled PRO or a wh-subject.

Šimík (2013a)

- *Languages:* Czech
- *Label:* Modal existential wh-constructions (MECs)
- *Analysis:* MECs analyzed as “affordance descriptions”, which are construed as relations between individuals and events. In particular, the MEC denotes a relation between an individual and an event that the individual “affords” (makes possible) in virtue of its availability (to some agent, or in general).

Fortuin (2014)

2014

- *Languages:* Russian
- *Label:* Existential constructions
- *Observations:* Fortuin draws his data from the Russian National Corpus. In some cases, genitive instead of accusative ‘what’ is used: *Nam stalo čego terjat’* ‘We started to have something to lose.’ Embedding verbs: *byt’* ‘be’, *najtis’* ‘to turn up’ / ‘to be found’, *stat’* ‘become’, *okazat’sja* ‘turn out to be’ (p. 32). Fortuin finds evidence that the verb *est’* can stand in a clause-final position (or, in other words, that the MEC as a whole is syntactically mobile; cf. Šimík 2013b:1190): *U tebja čem zakusit’ est’?* ‘Do you have something to eat?’ (p. 44)
- *Analysis:* The analysis provided is couched in the framework of Semiotaxis, whereby the meaning of the infinitive is “situation type” (rather than a particular situation); the meaning of *byt’* is existence or presence of some phenomenon; the meaning of the dative (subject) is experiencer or recipient of the situation expressed by the rest: *byt’* plus wh-word plus infinitive. The negation expresses the absence of a referent expressed by the wh-word. In contrast to many previous approaches, Fortuin argues that *ne-* does not contain the (incorporated) existential verb. The existential semantics is emergent from the properties of the construction (the fact that *ne-* precedes a wh-word); p. 50.

Jędrzejowski (2015)

2015

- *Languages:* Old, Middle, and Modern Polish, (Czech)
- *Label:* Modal existential wh-constructions (MECs)
- *Claim:* The modality is realized within the MEC.

- *Observations:* In addition to ‘be’ and ‘have’ (Šimík 2011), J. finds examples of Modern Polish MECs embedded under ‘look for’ (though the translation corresponds to an embedded question) and ‘(can) find’. J. agrees with Šimík (2011) that Modern Polish MECs cannot be introduced by ‘why’, but finds examples with ‘when’ acceptable (thus revising the observation of Šimík 2011). Old Polish MECs utilized the subjunctive rather than the present infinitive. J. takes the presence of subjunctive to indicate the presence of a modal operator within the MEC and extrapolates that the infinitive contains a covert operator.

Kotek & Erlewine (2015a)

- *Languages:* Chuj (Mayan), (Hebrew)
- *Label:* Indefinite free relatives
- *Observations:* They argue that genuine indefinite free relatives exist in Chuj. On surface, they are indistinguishable from standard (definite) free relatives (no special mood, no modality, independent subject, no possibility of an overt head, no complex wh-phrases), but differ from them in distribution (complement to the existential verb or verbs that can be argued to involve an existential component in the “standard” Szabolcsi (1986)/Grosu (2004) sense) and interpretation (narrow scope existential).

Mazzitelli (2015: section 6.13)

- *Languages:* Belarusian, Lithuanian
- *Label:* BKI-construction (term from Rappaport 1986)

Polinsky (2015: Part 3, section 10(2.4))

- *Languages:* Tsez (Caucasian, Daghestanian)
- *Label:* Modal existential construction / Modal existential relative (clause)
- *Observations:* The basic properties of MECs are replicated in Tsez (fronted wh-word, infinitive or masdar morphology, primarily existential and possessive embedders, but also ‘need’, complex wh-phrases (with NP sortals) rejected, no head noun allowed)

Probert (2015:148ff.)

- *Languages:* Early Greek
- *Label:* Indefinite free relative clauses
- *Observations:* They are not maximalizing (as opposed to standard free relatives).

Camilleri & Sadler (2016)

- *Languages:* Maltese
- *Label:* Modal existential free relative clauses
- *Observations:* Embedding under “existential predicates” (exemplified: ‘find’, ‘remain’, ‘exist’, ‘have’); indefinite heads; both negative and affirmative uses; embedded predicate only imperfective; modal interpretation (circumstantial possibility or weak (?) deontic necessity); introduced by ‘what’ or ‘who’ (otherwise unavailable as a productive relative pronoun in Maltese).

2016

- *Further remarks:* The authors report that they have found no discussion of the construction at hand in the literature on Maltese.

Cinque (2016)

- *Languages:* Italian (spoken in the Northeast of Italy), (Romanian, Bulgarian, Italian)
- *Label:* Modal existential wh constructions
- *Observations:*
 - In Italian spoken in the Northeast of Italy, *che cosa* ‘what thing’, *che* ‘what’, and *cosa* ‘thing’ all have interrogative uses but no free relative uses. In the same region, these can be used in MECs, suggesting that they are closer to interrogatives than free relatives.
 - MECs permit gapping: *C’è chi preferisce la pasta e chi il riso* (lit. ‘there is who prefers pasta and who rice’). Gapping is permitted in wh-interrogatives, but not in free relatives (Rizzi 1982: 75f., note 32). My comment: The example provided has no modality characteristic of MECs. It thus falls under the rubric of Caponigro’s (2003) non-modal MECs, or simply existential free relatives.
- *Analysis:* Bare CP analysis (which the above observations support).

Citko & Gračanin-Yüksek (2016)

- *Languages:* Polish, Czech, Bulgarian
- *Label:* Modal existential wh-construction (acknowledging other labels: irrealis/infinitival free relatives, existential free relatives)
- *Analysis:* They follow most literature in assuming that MECs are truly headless CPs, as opposed to free relatives.
- *Observations:* Coordination of wh-words is subject to the same restrictions as in interrogatives (and unlike free relatives); i.e., it is quite free. This is attributed to the lack of a head (overt or covert).

Gheorghe (2016)

- *Languages:* Old Romanian
- *Label:* Modal existential construction
- *Observations:* One example of an Old Romanian MEC, in comparison to headed infinitival relatives

Kotek & Erlewine (2016)

- *Languages:* Chuj (Mayan), Kaqchikel (Mayan), (Hebrew)
- *Label:* Modal existential wh-constructions (as compared to indefinite free relatives)
- *Observations:* They argue that genuine indefinite free relatives exist in Chuj and Kaqchikel. On surface, they are indistinguishable from standard (definite) free relatives (no special mood, no modality, independent subject), but differ from them in distribution (complement to the existential verb) and interpretation (narrow scope existential).

- *Analysis:* The analysis of the indefinite free relatives build on the standard assumptions about wh-clauses and resembles Caponigro’s (2003) analysis of MECs.

Ojea (2016)

- *Languages:* Spanish
- *Label:* Cláusulas relatives existenciales modales (Modal existential relative clauses), abbreviated as REM.
- *Observations:* Topicalization (diagnosed by clitic doubling) is not possible within Spanish MECs. Evidence is provided that this is not just due to the non-indicative nature of the constructions.
- *Analysis:* MECs analyzed as “defective nominalizations”, derived from a CP, selected by a nominalizer and then by a quantificational head (with an existential import).

Torrence & Duncan (2016)

- *Languages:* Kaqchikel (Mayan)
- *Label:* Existential free relatives (after Caponigro 2003)
- *Observations:* They show that a free relative receives an existential force if it is selected by the existential predicate *k’o* ‘exist/there is’. Existential free relatives can be introduced by ‘who’, ‘where’, and ‘how’, but not by ‘which’, ‘when’, or ‘why’.

Bosque (2017:27)

2017

- *Languages:* Spanish
- *Label:* Modal existential wh-constructions
- *Comment:* Written in Spanish; an article that deals with verbs of remembering and forgetting and their nominal and sentential (wh-)complements; MECs are only briefly mentioned.

Hoge (2017)

- *Languages:* Yiddish
- *Label:* Indefinite free relatives (but recognizing the term existential wh-constructions)
- *Observations:* Yiddish MECs display no matching effects; they can be infinitival (and also finite, which has been known/illustrated in the literature); they are transparent for (reflexive) clitic climbing and for wh-movement; they can have wh-subjects (in which case they’re finite). There are also examples of genuine indefinite free relatives—in a there-context (although with generic flavor).

Panevová (2017:224–225)

- *Languages:* Czech
- *Label:* modální existenční věty (translation of modal existential sentence); in the English abstract: modal-existential construction

- *Note:* The author discusses MECs in the context of other “marginal” infinitival constructions in Czech (and a few other Slavic languages) and provides some miscellaneous largely corpus-based observations.
- *Note:* The paper is written in Czech.

Sadler & Camilleri (2017)

- *Languages:* Maltese, occasional examples from other languages
- *Label:* Modal existential construction
- *Observations:* The paper provides a systematic description of Maltese MECs. They conform to most of the robust universals or universal tendencies postulated in Šimík (2011), such as restricted distribution, modality, and MEC-internal verb form. The authors demonstrate that Maltese, lacking the infinitive, makes use of the imperfective aspect in MECs, the perfective aspect being ruled out (giving rise to standard/definite FR readings). They also speculate that Maltese could have the apparent “headed MECs”, like Spanish (see section 6.5.1 of Šimík 2011).

Šimík (2017)

- *Languages:* All languages with MECs or other existential wh-constructions
- *Label:* Modal existential wh-constructions
- *Note:* An annotated bibliography that summarizes the most important literature on MECs and other wh-constructions that are (or have been claimed to be) interpreted existentially.

Tsedryk (to appear)

- *Languages:* Russian
- *Label:* Modal existential constructions
- *Note:* Discusses individual cases of MECs, in the context of the Russian dative-infinitive construction.
- *Observations:* The verb ‘be’ can be head-moved (for yes-no interrogative force).

Caponigro (to appear)

2018

- *Languages:* Italian
- *Relevance:* Caponigro rectifies Donati & Cecchetto’s (2011) claim that free relatives can be infinitival; he shows that they mistake an example of MEC for a (standard) free relative.
- *Assumed analysis:* CP.

Kotek & Erlewine (2018, to appear)

- *Languages:* Chuj
- *Relevance:* They discuss indefinite/existential free relatives in the context of other wh-word uses in that language; see also notes to Kotek & Erlewine (2016).

2 Language ordering

This section contains an exhaustive overview of the literature on MECs, ordered according to the language(s) it deals with. Boldfaced references correspond to studies that deal with MECs in the particular languages in some detail (and that I have read), ordinary references correspond to studies in which the topic of MECs in the particular language is marginal, and bracketed references are those that I have not read.

2.1 Baltic

Latvian

- Holvoet (1999)

Lithuanian

- (Palmais 1984), Ambrazas (1997), **Holvoet (1999)**, (Kalėdaitė 2000, 2002), (Holvoet 2001), Holvoet (2003), **Kalėdaitė (2008)**, Šimík (2011), (Kalėdaitė 2012), **Kalėdaitė (2013)**, Mazzitelli (2015: section 6.13)

2.1.1 Caucasian

Tsez

- Polinsky (2015: Part 3, section 10(2.4))

2.2 Finno-Ugric

Estonian

- Caponigro (2003: Chapter 3), Šimík (2011)

Finnish

- Caponigro (2003: Chapter 3), Tredinnick (2005), Šimík (2011)

Hungarian

- Lipták (2000, 2001), **Lipták (2003)**, Caponigro (2003: Chapter 3), Grosu (2004), **Surányi (2005)**, Gärtner & Gyuris (2006), **Šimík (2011, 2013b)**

2.3 Germanic

English (New York)

- Caponigro (2003: Chapter 3), Tredinnick (2005), Šimík (2011)

Yiddish

- Caponigro (2001), Caponigro (2003: Chapter 3), Tredinnick (2005), Šimík (2011), **Hoge (2017)**

2.4 Mayan

Chuj

- Kotek & Erlewine (2015a), **Kotek & Erlewine (2016, to appear)**

Kaqchikel

- **Kotek & Erlewine (2015b), Torrence & Duncan (2016)**

2.5 Otomanguean

Melchor Ocampo Mixtec

- Caponigro et al. (2013)

Nieves Mixtec

- Caponigro et al. (2013)

2.6 Romance

Catalan

- Hirschbühler & Rivero (1981), Suñer (1984), Caponigro (2003: Chapter 3), **Bartra i Kaufmann (1990)**, Tredinnick (2005), Šimík (2011)

French

- (Hirschbühler 1976), (Obenauer 1977), **Hirschbühler (1978: 176,fn14; 218ff,§7.8)**, Hirschbühler & Rivero (1981), **Suñer (1984)**, Caponigro (2001), Grosu (2002), Caponigro (2003: Chapter 3), Grosu (2004), **Thomas (2008a; 2008b)**, Šimík (2011)

Italian

- Pancheva Izvorski (2000: Chapter 2), **Caponigro (2001), Caponigro (2003: Chapter 3), Caponigro (2004)**, Tredinnick (2005), Šimík (2011, 2013b), Donati & Cecchetto (2011: p. 553, ex. (107)), Bertollo & Cavallo (2012: p. 63, fn. 5), Cinque (2016)

Portuguese

- Brito (1988: Chapter 5, Section 3.1.2., pp. 371–377), Mória (1992: Section 3.2; pp. 93–119), (Peres & Mória 1995), Šimík (2011, 2013b)

Romanian

- **Grosu (1989), Grosu (1994:137–143), Grosu and Landman (1998: 155–158)**, Caponigro (2001), Grosu (2002), Caponigro (2003: Chapter 3), **Grosu (2004)**, Šimík (2011), **Gheorghe (2011), Grosu (2013:657–662)**

Romanian (Old)

- Gheorghe (2016)

Spanish

- (Bello 1847), (Ramsey 1894, 1956), (Plann 1975), (Van Riemsdijk 1978), **Plann (1980: III.B, IV, V (123–162))**, **Suñer (1984)**, **Grosu (1989)**, (Ramos-Santacruz 1994), Grosu (1994:137–143), Izvorski (1998), Caponigro (2001), Caponigro (2003: Chapter 3), Grosu (2004), **Šimík (2011, 2013b)**, **Guajardo (2013)**, **Ojea (2016)**, Bosque (2017)

Spanish (Old)

- Pancheva Izvorski (2000: Chapter 2)

2.7 Semitic

Amharic

- possibly Leslau (1995)

Arabic (Classical)

- Grosu (2004), Šimík (2011)

Arabic (Moroccan)

- Caponigro (2003: Chapter 3), Šimík (2011)

Hebrew (Modern)

- Grosu (1994:137–143), Pancheva Izvorski (2000: Chapter 2), Caponigro (2001), Caponigro (2003: Chapter 3), Caponigro (2004), Grosu (2004), Tredinnick (2005), (Caponigro et al. 2013), Šimík (2011)

Maltese

- Camilleri & Sadler (2016), **Sadler & Camilleri (2017)**

2.8 Slavic

Belarusian

- Mazzitelli (2015: section 6.13)

Bulgarian

- (Penchev 1981), **Rudin (1986: Chapter 6)**, Izvorski (1998), Bošković (1998), Pancheva Izvorski (2000: Chapter 2), Caponigro (2001), Caponigro (2003: Chapter 3), Grosu (2004), Šimík (2011), Citko & Gračanin-Yüksek (2013, 2016)

Croatian

- Šimík (2011), Citko & Gračanin-Yüksek (2013, 2016)

Czech

- **Zubatý (1922)**, Růžička (1994), **Ceplová (2007)**, **Šimík (2008, 2009, 2011, 2013b, 2013a)**, Citko & Gračanin-Yüksek (2013, 2016), Jędrzejowski (2015), Panevová (2017:224–225)

Czech (Old)

- (Trávníček 1931), (Porák 1967)

Macedonian

- Caponigro (2003: Chapter 3), Grosu (2004), Šimík (2011)

Polish

- (Mirowicz 1964), (Besters-Dilger 1988), **Holvoet (1999)**, (Holvoet 2001), Holvoet (2003), Caponigro (2003: Chapter 3), Grosu (2004), Mendoza (2004:333–334), Citko (2010: p. 246, fn. 20), Šimík (2011), Citko & Gračanin-Yüksek (2013, 2016), **Jędrzejowski (2015)**

Polish (Old and Middle)

- Jędrzejowski (2015)

Russian

- (Peškovskij 1934), (Holthusen 1953), (Galkina-Fedoruk 1958), (Šaxmatov 1963), (Mirowicz 1964), (Švedova 1970), (Georgieva 1971), (Mrázek 1972), Chvany (1975: 62), (Isačenko 1976), (Garde 1976), (Veyrenc 1979), **Pesetsky (1982:149–157)**, (Zolotova 1982), **Rappaport (1986)**, (Nozsicska 1987), (Besters-Dilger 1988), (Apresjan and Iomdin 1989), (Yoon 1989), (Bricyn 1990), **Růžička (1994)**, **Holvoet (1999)**, Pancheva Izvorski (2000: Chapter 2), **Babby (2000)**, Fortuin (2000: s. 4.16.2, pp. 456–464), Caponigro (2001), (Holvoet 2001), Holvoet (2003), **Avgustinova (2003)**, Caponigro (2003: Chapter 3), Grosu (2004), Fleisher (2006), **Nikunlassi (2008)**, **Kondrashova (2008)**, Šimík (2009), **Šimík (2011, 2013b)**, **Kondrashova and Šimík (2013)**, **Livitz (2010, 2012, 2013)**, Jung (2010, 2011), Citko & Gračanin-Yüksek (2013), **Fortuin (2014)**, Tsedryk (to appear)

Russian (Old)

- Jung (2010, 2011)

Serbo-Croatian

- (Browne 1986), Pancheva Izvorski (2000: Chapter 2), Caponigro (2001), Caponigro (2003: Chapter 3), Grosu (2004), Šimík (2009), Citko & Gračanin-Yüksek (2013, 2016), Šimík (2011)

Slavonic (Old Church)

- (Bauer 1967), (Holvoet 1999)

Slovak

- Růžička (1994), Šimík (2011)

Slovenian

- Šimík (2011)

Ukrainian

- Šimík (2011)

2.9 Uncategorized (Indo-European)

Albanian

- Caponigro (2003: Chapter 3), Grosu (2004), Šimík (2011)

Greek (Modern)

- Izvorski (1998), Pancheva Izvorski (2000: Chapter 2), Caponigro (2001), Caponigro (2003: Chapter 3), Agouraki (2003), **Agouraki (2005)**, Grosu (2004), Šimík (2011)

Greek (Early)

- (Hermann 1912), Probert (2015)

2.10 Uncategorized (Rest)

Basque

- Rebuschi (2009), Šimík (2011)

3 Types of analysis

This section is a non-exhaustive overview of the literature on MECs, organized according to the type of syntactic and semantic analyses proposed. It contains only studies that deal with MECs in some detail and make theoretically relevant claims. Like in the preceding sections, references in brackets refer to studies that I have not read but that are more or less reliably reported on in other literature. This section is divided into two subsections, one summarizing the literature according to the syntactic analysis assumed (§3.1) and the other according to the semantic analysis (§3.2). Naturally, some references occur in both subsections. The reader should bear in mind that the present section only provides an overview, not a thorough description of the analyses proposed. For a critical review of existing analyses, I refer the reader to the two state-of-the-art sections of my thesis (Šimík 2011), section 5.1 for syntax and section 6.1 for semantics.

3.1 Syntactic analyses

There are three main types of syntactic analyses, which differ mainly in terms of the internal syntax proposed for MECs. As regards the external syntax of MECs, i.e. MECs' distribution, virtually all existing analyses (with the exception of the present thesis) have assumed that MECs correspond to their corresponding weak argument DPs.

NP/DP analysis

Characterization

- MECs are treated as CPs headed by or adjoined to some phonologically empty nominal category. Particular analyses differ in their assumptions about the kind of category involved, ranging from *pro*, NP, D, or a full-fledged DP.
- Under this analysis, MECs resemble free or headed relative clauses.
- Holvoet (2001) argues that the NP/DP analysis is an earlier development stage of the MEC.

Proponents

- (Porák 1967), (Plann 1975), (Obenauer 1977), (Van Riemsdijk 1978), Hirschbühler (1978), Plann (1980), Suñer (1984), Rappaport (1986), Brito (1988), Mória (1992), Růžička (1994), Lipták (2003), Agouraki (2005), Livitz (2010), Ojea (2016)

CP analysis

Characterization

- MECs are treated as “bare” CPs, i.e. CPs that are directly selected by the matrix verb.
- Under this analysis, MECs resemble embedded wh-questions.

Proponents

- Zubatý (1922), (Garde 1976), Pesetsky (1982), Rudin (1986), Grosu (1989, 1994, 2013), (Bartra i Kaufmann 1990), Grosu & Landman (1998), Izvorski (1998), Pancheva Izvorski (2000), Babby (2000), Caponigro (2001, 2003, 2004); ?, Lipták (2003), Grosu (2004), Thomas (2008a,b), Jung (2010, 2011), Livitz (2012, 2013), Citko & Gračanin-Yüksek (2013, 2016), Cinque (2016)

VP analysis

Characterization

- MECs are treated as VPs or vPs.
- Under this analysis, MECs resemble infinitives selected by restructuring verbs.

Proponents

- Chvany (1975), Avgustinova (2003), Surányi (2005), Ceplová (2007), Kondrashova (2008) , Šimík (2008, 2009), Kondrashova and Šimík (2013)

3.2 Semantic analyses

Quantificational analysis

Characterization

- MECs are treated as generalized quantifiers, i.e. expressions of type $\langle et, t \rangle$, and as such are subject to quantifier raising.
- Under this analysis, MECs resemble (strong) quantificational DPs.

Proponents

- Pesetsky (1982), Rappaport (1986), Grosu (2004, 2013)

Property analysis

Characterization

- MECs are treated as properties/predicates, i.e. expressions of type $\langle e, t \rangle$, by virtue of the left peripheral wh-operator. Their apparent quantificational force comes from the matrix verb.
- Under this analysis, MECs resemble predicative NPs and relative clauses.

Proponents

- Grosu (1994), Grosu & Landman (1998), Caponigro (2001, 2003, 2004), Izvorski (1998), Pancheva Izvorski (2000), Agouraki (2005), Šimík (2008)²

Propositional analysis

Characterization

- MECs are treated as open propositions, i.e. expressions of type t (or $\langle s, t \rangle$), which are “open” by virtue of the presence of an unbound variable in the form of the wh-word. A notational variant of this analysis holds that MECs denote a set of propositions. The apparent quantificational force comes from the matrix verb.
- Under this analysis, MECs resemble embedded questions as analyzed by Hamblin (1973) or Berman (1991).

Proponents

- Izvorski (1998), Pancheva Izvorski (2000), Surányi (2005), Šimík (2009), Kondrashova & Šimík (2013)³

Affordance analysis

Characterization

- MECs are treated as expressions of type $\langle e, \langle v, st \rangle \rangle$, (where v is the type of events), i.e., relations between individuals and events (and situations). These relations are understood in terms of “affordances”, i.e., a special kind of properties of individuals—the set of events that an individual (or, more precisely, the individual’s availability) “affords” (makes possible).

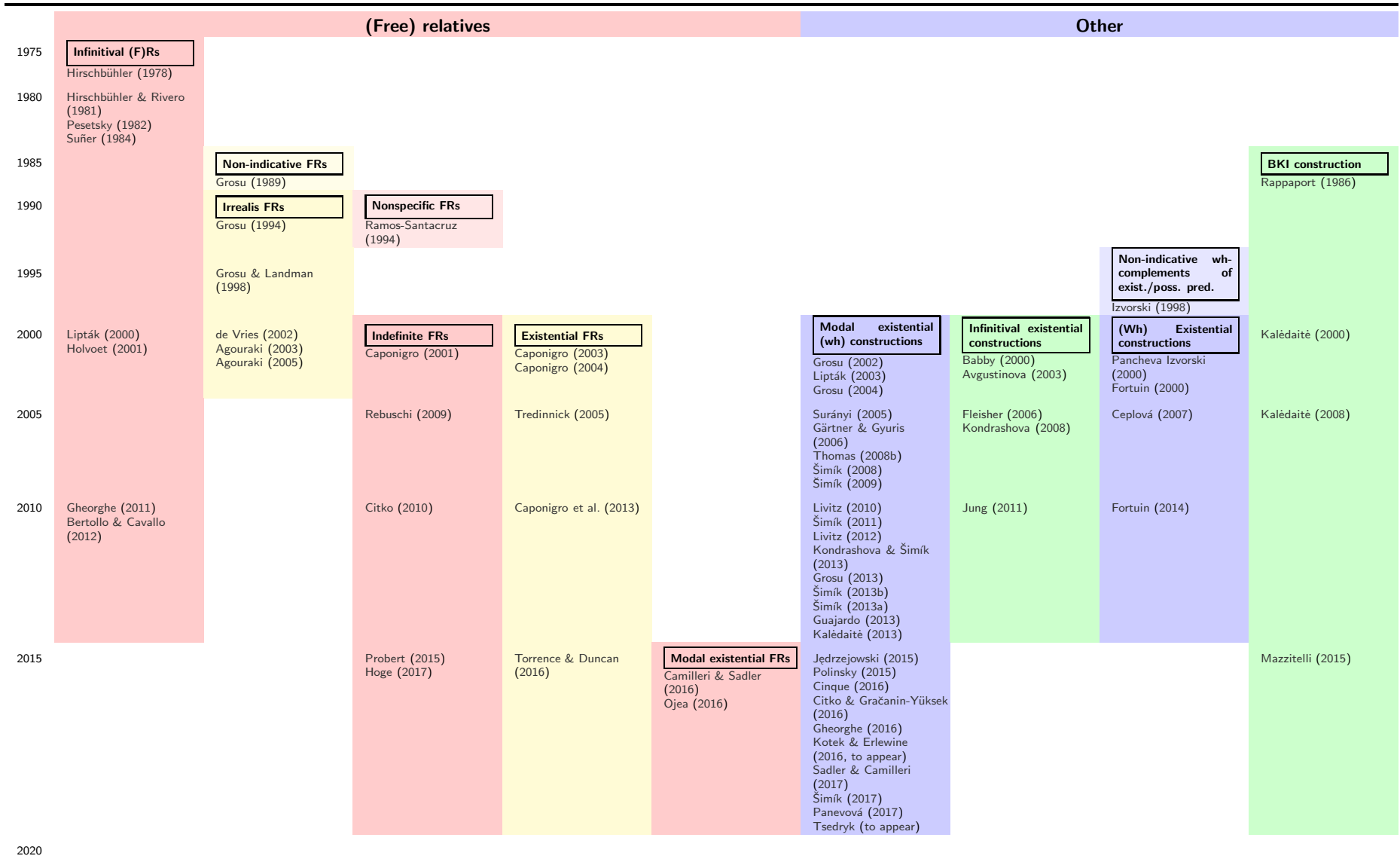
Proponents

- Šimík (2011, 2013b,a)

²Grosu (1994) suggests that MECs belong to the class of “amount relatives” (cf. Carlson 1977), however, no explicit semantic analysis is provided. In Izvorski (1998) and Pancheva Izvorski (2000), there is a discrepancy between the informal and the formal part of the analysis. Informally (in words), (Pancheva-)Izvorski argues for an open proposition analysis, but formally provides a property analysis.

³There is a discrepancy between the informal and the formal part of (Pancheva-)Izvorski’s analysis. Informally (in words), she argues for an open proposition analysis, but formally provides a property analysis.

4 Terminology



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